

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte GORDON BREMER and RAMON B. HAZEN

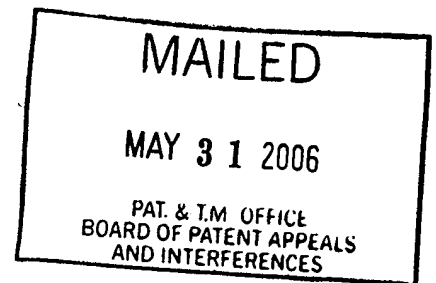
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Appeal No. 2006-1313  
Application 09/645,206

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ON BRIEF

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Before THOMAS, JERRY SMITH, and MACDONALD, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellants have appealed to the Board from the examiner's final rejection of claims 1 through 65.

Representative independent claim 1 is reproduced below:

1. A system for reducing undesirable signals in a communication network, comprising:

means for compensating, said compensating means providing capacitance;

Appeal No. 2006-1313  
Application 09/645,206

means for connecting said compensating means to a pair of conductors selected from a plurality of conductors; and

means for selectively actuating said compensating means such that said compensating means, when actuated by said actuating means, reduces an undesirable crosstalk signal caused by a mismatch between a plurality of mutual capacitive couplings associated with said plurality of conductors.

The following references are relied on by the examiner:

Agazzi et al. (Agazzi)	4,669,116	May 26, 1987
Sciacero et al. (Sciacero)	5,502,391	Mar. 26, 1996
Arnett et al. (Arnett) ['742]	6,176,742	Jan. 23, 2001 (Filed Jun. 25, 1999)
Arnett et al. (Arnett) ['834]	6,186,834	Feb. 13, 2001 (Filed Jun. 8, 1999)

All claims on appeal stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon appellants' admitted prior art (which includes disclosed prior art figures 1 and 2 and their corresponding discussions in the specification) in view of either Sciacero or Arnett '742 or Arnett '834, further in view of Agazzi. Because of the alterative use of Sciacero, Arnett '742 and Arnett '834, there appears in effect to be essentially three separately stated rejections.

Rather than repeat the positions of the appellants and the examiner, reference is made to the brief and reply brief for appellants' positions, and to the answer for the examiner's positions.

OPINION

We affirm.

Initially, to the extent the examiner relies in the alternative upon either Arnett patent in the combination of references relied upon, we reverse those rejections. Both Arnett patents relate to electrical connectors per se. Arnett '742 shows, as relied upon by the examiner, in figure 6 that crosstalk may be mitigated by capacitors to compensate for the crosstalk. A similar showing exists in figure 7 of Arnett '834.

Although it is rather difficult to understand the examiner's reasoning of combinability of either of these patents with the admitted prior art and Agazzi as set forth in the answer, it appears that the examiner is relying upon both Arnett's patents in the alternative to teach or show that it was known in the art to use capacitors to compensate for crosstalk in the environmental showing of appellants' admitted prior art. To the extent any of the claims on appeal requires switching or the selective actuating as in independent claim 1, the examiner appears to rely upon Agazzi. The examiner's reliance upon this reference is speculative at best since the examiner only relies upon the notion at column 1, lines 17 through 20 that non-linear

echo cancellation may be characterized as means of crosstalk correction. It becomes extremely speculative and problematic at best for the examiner to rely upon Agazzi's figure 3 to show the switchability among various sample and hold circuits to provide individual, selective actuation of compensating capacitors in the admitted prior art in view of either or both of the Arnett's patents. The extensive remarks by appellants in the brief and reply brief with respect to Agazzi are persuasive for reaching a conclusion that the examiner has not established a prima facie case of obviousness to the extent that the examiner relies upon both Arnett's patents in the alterative.

On the other hand, we reach an opposite result with our conclusion of affirming the rejection based upon appellants' admitted prior art, Sciacero and Agazzi. The examiner's statement of the rejection at pages 3 and 4 of the answer only weakly argues the combinability of these references. The teaching value of Sciacero is more expansively appreciated by the examiner at page 9 of the answer where, at least as to claim 1,

the examiner correlates the claimed means for compensation, the means for connecting and the means for selectively actuating to identifiable figures and columns in this reference.

Since appellants' brief focuses almost executively upon Agazzi, the remarks as to the examiner's reliance upon Sciacero are set forth as to each of independent claims 1, 33, 37, 48 and 62 beginning at page 17 of the reply brief. As to claim 1, the appellants only argue the means for selectively actuating clause of independent claim 1. Correspondingly, as to independent claim 33, appellants argue the plurality of switches clause, the processor clause and the closing such that clause. As to independent claim 37, the feature of a plurality of compensating device switches to the end of the claim is argued by appellants. In claim 48, appellants argue the selecting and switching clauses of this claim. Finally, the selecting and generating clauses of independent claim 62 are argued. Significantly, however, appellants present no arguments as to any other features recited in each of these independent claims as distinguishing over Sciacero or the admitted prior art relied upon by the examiner.

As to each of these independent claims, the reply brief also asserts that Sciacero must be limited to measuring crosstalk. As to this argument, we strongly disagree since even a cursory reading of the abstract of this reference plainly indicates that not only does Sciacero teach of measuring crosstalk, it also teaches explicitly of developing compensating signals which equal the crosstalk signal magnitudes as developed in terms of an opposite signal value to therefore compensate for any detectable crosstalk.

In addition to those portions of Sciacero the examiner has relied upon in the answer, we make note of the following: The showing in figures 3D, 4, 5, 8 and 9. Figures 2, 3A through 3C show prior art distributions of crosstalk that exist with respect to pairs of conductors in the same manner as appellants' admitted prior art recognizes such. Significantly, the showing in figure 3D directly compensates for the sensed or measured crosstalk by use of the switching matrix which provides for selective connection of cancelling capacitors. The processing control unit 402 in figure 4 effectively controls the switching matrix compensation interface 420 in this figure, the details of

which are more explicitly shown in figure 5. An alternative approach to measuring and cancelling is shown in figure 8, the operation of which is depicted in a flowchart form in figure 9.

From this discussion of Sciacero it is clear to us that this reference significantly teaches of selectively actuating compensation means in the form of capacitors to reduce undesired crosstalk signals that may have resulted from mismatching of normally encountered capacitive coupling among parallel conductors. To the extent any independent claim that is argued before us requires a switching element or a processor or that the compensating capacitors be in parallel or have a separate detectability circuit, it is clear to us that Sciacero plainly teaches them in proper combination. We therefore find unpersuasive appellants' general arguments of patentability beginning at page 17 of the reply brief that Sciacero does not teach the noted features of each of the independent claims. Plainly, from our perspective, it appears that the artisan would not have agreed with appellants.

We also make special note that the appellants have not argued against the combinability of the admitted prior art and Sciacero in the brief or reply brief. To the extent appellants have argued against the combinability of Agazzi with

respect to these two prior art references, we consider Agazzi to be merely cumulative to the switching controls by means of a switching matrix and the like to that which has already been taught in Sciacero.

We note as well that appellants have presented no arguments before us in the brief or reply brief as to any dependent claim of independent claims 1, 33, 37, 48 and 62 on appeal. Likewise, to the extent the examiner's positions set forth in the answer may be properly construed as setting forth new grounds of rejection, and we assume for the sake of argument that they may be construed that way, the arguments presented in the reply brief (entered by the examiner) directly address those arguments, leading us to conclude that appellants are not procedurally disadvantaged by the examiner's additional positions set forth in the answer.

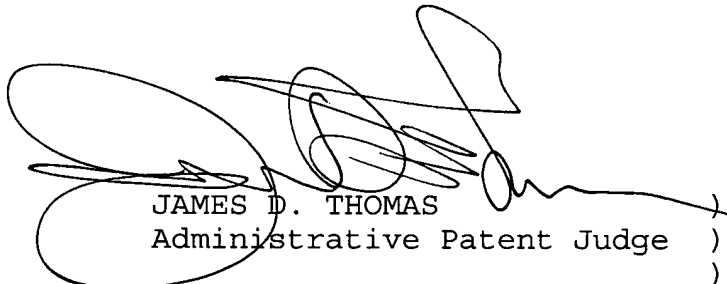

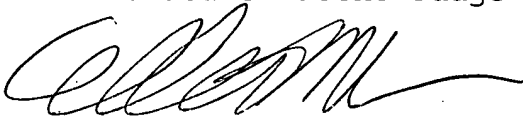
In view of the foregoing, the decision of the examiner rejecting all claims on appeal under 35 U.S.C. § 103 is affirmed.



Appeal No. 2006-1313  
Application 09/645,206

No time period for taking any subsequent action in  
connection with this appeal may be extended under 37 CFR  
§ 1.136(a)(1)(iv).

AFFIRMED

  
JAMES D. THOMAS  
Administrative Patent Judge )  
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JERRY SMITH  
Administrative Patent Judge )  
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ALLEN R. MACDONALD  
Administrative Patent Judge )

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Appeal No. 2006-1313  
Application 09/645,206

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